

REMARKS

Claims 35-48 are pending in this application.¹ Claim 35 is independent. Favorable reconsideration and further examination is respectfully requested.

Independent claim 35 was rejected over U.S. Patent No. 5,583,870 (Delprat). Dependent claims 42, 45 and 46 were also rejected over Delprat. The remaining dependent claims were rejected over Delprat in view of one or more of the following references: U.S. Patent No. 6,125,125 (Narashima), U.S. Patent No. 5,274,669 (Klank), U.S. Patent No. 4,577,334 (Boer), and U.S. Patent No. 5,598,404 (Hayashi). Independent claim 35 has been amended.

Independent claim 35 includes measuring transmission characteristics of radio channels in part by transmitting the data as bursts from a first of the base stations to the radio station, each burst having a channel measurement sequence. The first of the base stations transmits a channel measurement sequence in at least one timeslot in which only the channel measurement sequence, and in which no data and no signaling information, is transmitted from the first of the base stations to the radio station.

Delprat is not understood to disclose or suggest at least the foregoing features of claim 35. In this regard, the Office Action states the following about Delprat:

¹ The Examiner is urged to independently confirm this recitation of the pending claims.

Transmitting the data as bursts (Figure 1B, any of time slots IT0-IT7) from a first of the base stations to the radio station, each burst having a channel measurement sequence (training sequence), the first of the base stations transmitting the channel measurement sequence in at least one timeslot (Figure 1B, time slots IT2, IT3, IT6, IT7) in which no data is transmitted from the one of the base stations to a radio station. In Figure 1B, time slots IT2, IT3, IT6, IT7 do not carry user information so are used instead to carry signaling data (Column 5, lines 1-18). The signaling data can be a training sequence such as in a synchronization burst (Column 5, lines 29-40).

As indicated above, the Office Action indicates that the signaling data can be a training sequence. At least with respect to Delprat, this statement is believed to be factually incorrect. More specifically, in Delprat, the training sequence and signaling data are separate, and bursts (normal or otherwise) that contain no data include both signaling data and a training sequence. We have reproduced the relevant portions of Delprat below in support of our contentions.

Since no other mobile is involved in a call under the coverage of BTS1, time slots IT2, IT3, IT6, and IT7 are not used to transmit useful data. Conventionally, in the prior art, those time slots are occupied by dummy bursts B_R, which have a structure such that they contain no information addressed to the mobile stations, and it is impossible for the mobile stations to confuse them with any other type of burst.

In accordance with the invention, instead of occupying time slots IT2, IT3, IT6, and IT7 with dummy bursts having the above-indicated structure, dummy bursts containing signalling information are used.

Conventionally, the signalling bursts have:

either the structure of "normal" bursts, i.e. they have a structure that is identical to the structure of bursts containing useful data, and, once a mobile station has become synchronized with the base station of the cell in which the mobile station is located, the mobile station distinguishes signalling bursts from useful data bursts because they are transmitted over the beacon path and they contain a destination address (not necessarily a corresponding address);

or else a specific structure that is different from the structure of normal bursts, e.g. such as the structure of synchronization bursts or of frequency correction bursts in systems complying with the GSM standard; each such synchronization burst includes in particular a characteristic "training" sequence that is distinct from (in particular longer than) the training sequence used in normal bursts, so that a mobile station that is not synchronized with the base station and that, at

certain times, "listens" to everything that is transmitted over a signalling channel is capable of detecting a synchronization burst.²

Naturally, in accordance with the invention, the structure of the dummy bursts may be varied.

In this way, as described above, a structure may be chosen such that each dummy burst contains a synchronization burst which can be identified easily by the mobile station by means of its specific training sequence.

In a system complying with the future TETRA standard, the synchronization burst (BSCH) has a duration equal to half that of the allotted time slot, so that, in the dummy burst of the invention, the synchronization burst can be associated with another signalling burst, e.g. such as an information burst giving information on the type of network to which the cell in question belongs (BNCH). In this way, during the period for which synchronization acquisition is being sought, once the mobile station has identified the synchronization burst by means of its specific training sequence, the mobile station also has access to certain other signalling information.³

As evidenced by the underlined portions above, there are three possibilities for bursts that contain no data. First there are "dummy bursts B_R , which have a structure such that they contain no information addressed to the mobile stations". The application does not elaborate on these, since they are allegedly prior art. However, there is no indication that such dummy bursts contain a channel measurement sequence of the type claimed. Second, there are signaling bursts that have "the structure of 'normal' bursts, i.e. they have a structure that is identical to the structure of bursts containing useful data". As is clear from the underlined portions above, "normal" bursts include a training sequence. From this, we can infer that this type of signaling burst includes signaling information and a training sequence. Finally, there are signaling bursts that have a

specific structure that is different from the structure of normal bursts, e.g. such as the structure of synchronization bursts or of frequency correction bursts in systems complying with the GSM standard; each such synchronization burst includes in particular a characteristic "training" sequence that is distinct from (in particular longer than) the training sequence used in normal bursts.

² Col. 5, lines 7 to 41

³ Col. 6, lines 10 to 26

This type of signaling burst therefore also includes signaling information and a training sequence. Accordingly, contrary to what is said in the Office Action, Delprat does not appear to disclose or to suggest transmitting a channel measurement sequence in at least one timeslot in which only the channel measurement sequence, and in which no data, is transmitted. That is, in Delprat, either nothing is transmitted or both a training sequence and signaling data are transmitted. Neither of these constructions is what we claim.

For at least the foregoing reasons, claim 35 is believed to be patentable.

Dependent claims are also believed to define patentable features of the invention. Each dependent claim partakes of the novelty of its corresponding independent claim and, as such, all dependent claims have not be discussed specifically herein.

It is believed that all of the pending claims have been addressed. The absence, however, of a reply to a specific rejection, issue or comment does not signify agreement with or concession of that rejection, issue or comment. In addition, because the arguments made above may not be exhaustive, there may be reasons for patentability of any or all pending claims (or other claims) that have not been expressed. Finally, nothing in this paper should be construed as an intent to concede any issue with regard to any claim, except as specifically stated in this paper, and the amendment of any claim does not necessarily signify concession of unpatentability of the claim prior to its amendment.

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Applicant : Gerhard Ritter
Serial No. : 09/786,604
Filed : November 29, 2001
Page : 9 of 9

Attorney's Docket No.: 12758-
020001 / 1998P02493WOUS

January 21, 2009

Date: _____

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